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DIRECTORATE OF  
INTELLIGENCE

# Intelligence Memorandum

*The Impact of Reducing the Hanoi-Haiphong  
Prohibited Areas*

JCS Review Completed

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CENTRAL INTELLIGENCE AGENCY  
Directorate of Intelligence  
7 November 1967

The Impact of Reducing the Hanoi-Haiphong  
Prohibited Areas\*

Summary

This reduction of areas currently prohibited to bombing around Hanoi and Haiphong would bring only a few new targets into the attack program. In the Haiphong area, no unstruck targets on the JCS-CINCPAC list would be added. While 12 of the 30 unstruck targets around Hanoi would be added, only one of these is considered to be militarily important.

If at the same time field commanders were given unrestricted authority to conduct armed reconnaissance in the enlarged target areas, the effectiveness of attacks against key LOC targets and targets of opportunity would probably increase significantly. This program would, however, involve the risk of very high loss rates for US aircraft and pilots. It would also increase the rate of civilian casualties.

US aircraft losses against targets in the immediate Hanoi-Haiphong areas during the last six months were at a rate of 19.5 attack aircraft per 1,000 sorties. This compares to a loss rate of 8.1 aircraft for all sorties flown in Route Package VI during the period and a rate of 2.2 attack aircraft for operations over all of North Vietnam.

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*\*This memorandum analyzes the impact of reducing the prohibited zone around Hanoi from 10 to 3 miles and the prohibited zone around Haiphong from 4 to 1 1/2 miles.*

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### Existing Prohibitions

1. Under the current ground rules of the Rolling Thunder program targets located within a 10-mile radius of the center of Hanoi and a 4-mile radius of the center of Haiphong cannot be attacked unless field commanders receive authorization from the Joint Chiefs of Staff. A total of 40 recommended targets located within these prohibited areas have not been attacked.

2. The prohibited area around Hanoi contains 30 of the unstruck targets including petroleum storage facilities, supply depots, railroads yards and repair shops, dock and storage areas, machine tool and other small manufacturing plants, truck repair facilities, barge and boat building yards, a barracks area and two airfields (see Table 1). Many of these targets are in areas that are built up and heavily populated. However, only 8 of the targets are judged to be significant in terms of North Vietnamese military capabilities or their war-supporting functions.

3. There are 10 unstruck targets within the prohibited area around Haiphong. These include the port and its adjacent storage areas, the Haiphong railroad yard, some small manufacturing plants and a number of small shipyards, most of which are in the Haiphong port area. (See Table 2.) Only four of these are considered to be significant targets.

### Significance of Unstruck Targets

4. The eight significant targets in the Hanoi area include the Hanoi Railroad Classification Yard and Shops, a vehicle repair facility, two machine tool plants, two supply depots and a storage area and the Gia Lam Airfield.

5. The Hanoi Railroad Yard and Shops is an important classification yard and a major center for the flow of imported materials by rail through China and for seaborne imports moving West and South from Haiphong. Interdiction of the railroad yard would compound existing interruptions to rail traffic and would require time-consuming alternate routing and probably

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off-loading. Initial strikes on the railroad yard probably would result in significant damage to rolling stock inventories and locomotive and freight car repair facilities.

6. Effective attacks on the Hanoi Motor Vehicle Repair and Reassembly Plant would put out of operation one of the largest vehicle repair facilities in North Vietnam. It is doubtful, however, that this would have any appreciable effect on North Vietnam's capability to maintain vehicle transport equipment because of the extensive dispersal of repair facilities in recent years.

7. The Hanoi Engineering Plant and the Hanoi Machine Tool Engineering Equipment Plant were the most modern and productive of North Vietnam's small machine building industry. There have been reports that sections of the Machine Tool Plant have been dispersed and it is believed that the shortage of electricity in Hanoi has caused at least a slowdown in the output of both of these plants.

8. Attacks on supply depots and storage areas would have the potential of damaging considerable amounts of equipment and materials at least on the initial strikes. In addition to the destruction that might result from initial strikes, the possibility of future strikes would neutralize important sanctuary areas, increase problems of distribution and hamper the management of materials and equipment.

#### Reducing the Prohibited Area

9. A reduction of the prohibited area in Hanoi to a circle with a 3-mile radius and in Haiphong to one with a 1.5-mile radius would have little effect on the freeing for attack of significant unstruck targets. In Hanoi only 12 of the 30 unstruck targets in the 10-mile prohibited area would be subject to attack. However, only one of these -- the Kinh No storage area -- targets is judged to be a significant target. (See accompanying map.) In Haiphong, all of the unstruck targets are located within a radius of 1.5 miles from the center of the city so that a reduction of the prohibited area would bring no new targets under attack.

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10. If at the same time field commanders were granted the authority to conduct unlimited armed reconnaissance in the enlarged target areas, important LOC targets, especially key bridges, rail yards, and transport equipment, could be brought under more timely attack. In the Hanoi area these include such key targets as the railroad and highway bridge over the Canal des Rapides, the rail bypass to the Doumer Bridge, and the Yen Vien railroad yard. However, the key Doumer Bridge over the Red River and the Hanoi Powerplant would still be within the prohibited 3-mile radius. Twelve additional unstruck targets within the 10-mile zone but outside the 3-mile zone would also be subject to armed reconnaissance strikes. All of these targets, are fixed targets that are of only minor importance. The effectiveness of strikes against these low priority targets is not dependent on the granting of unrestricted armed reconnaissance authority to field commanders.

11. In the Haiphong area unrestricted armed reconnaissance strikes could be directed against the Haiphong Highway Bridge, SSE, and the Haiphong/Cat Bi Airfield.

12. More intensive and timely armed reconnaissance attacks against LOC targets in the Hanoi and Haiphong areas conducted on the authority of the field commanders could potentially cause greater damage to transport equipment and facilities and reduce the value of the Hanoi-Haiphong sanctuaries. However, such attacks would run the risk of causing much higher civilian casualties and higher aircraft losses.

#### Civilian Casualties

13. The proposed changes in Rolling Thunder ground rules would add to the overall effectiveness of the air campaign but they would extract an unusually high level of civilian casualties. Almost all of the targets in the present prohibited zones are located in areas that are built up and heavily populated. It is estimated that if all the unstruck targets in the prohibited zones were attacked civilian casualties could reach over 1,000, a number comparable to all civilian casualties resulting

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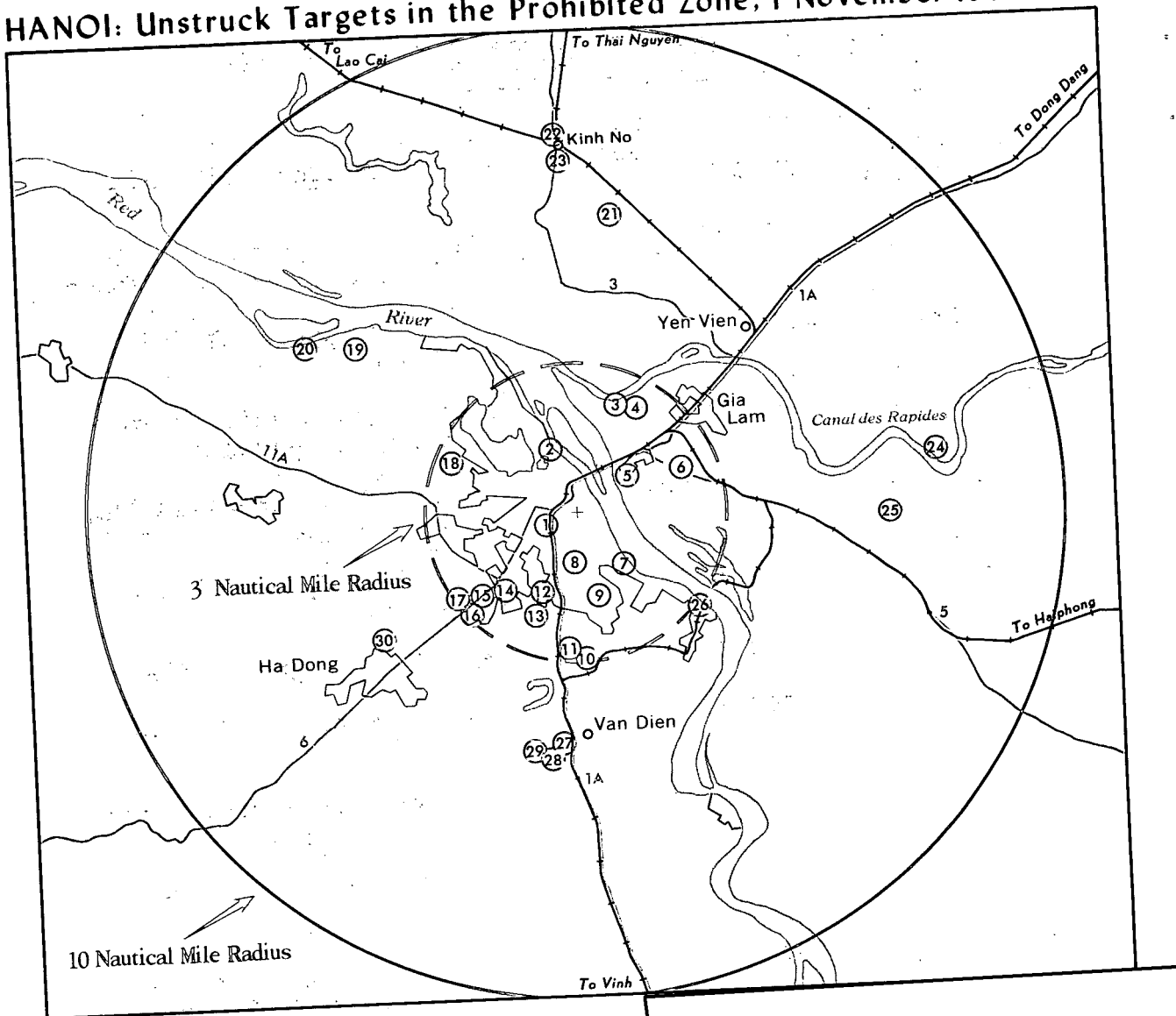
from attacks on fixed targets during the first 5 months of 1967. Many of these unstruck targets would not be attacked even under the new ground rules. However, the increased role of armed reconnaissance would probably result in a high rate of civilian casualties. Armed reconnaissance missions would be flown over the most densely populated and heavily defended areas of North Vietnam. Under these conditions it would be almost impossible for air operations to avoid spilling over into areas where casualties would be great.

Air Losses in the Hanoi-Haiphong Areas

14. During 1967 the Rolling Thunder campaign against targets located within 10-mile radii from the centers of Hanoi and Haiphong sustained losses at higher rates than for any other area of North Vietnam. During the 6 month period April-September 1967 about 1,485 attack sorties carrying out strikes against 38 targets located within 10-miles of Hanoi or Haiphong sustained 29 losses. The loss rate during these attacks came to 19.5 attack aircraft per 1,000 sorties in contrast to a loss rate in all of Route Package VI during the period of 8.1, and a loss rate of 2.2 attack aircraft for the entire country.

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# HANOI: Unstruck Targets in the Prohibited Zone, 1 November 1967



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See Table 1 for Target Names

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Table 1

Unstruck Targets in the Hanoi Prohibited  
Zone, 1 November 1967 a/

Map Key b/

Target Name

1	*Hanoi Railroad Classi- fication Yard and Shops
2	*Hanoi Supply Depot N, Tay Ho
3	Gia Thuong Rail Ferry Fit- ting-Out Facility
4	Hanoi Army Barracks NE, Gia Thuong
5	Hanoi Machinery Plant, Gia Lam
6	*Hanoi/Gia Lam Airfield
7	Hanoi Port Facilities, Red River
8	*Hanoi Engineering Plant, Tran Hung-Tao
9	*Hanoi Army Supply Depot S, Quinh Loi
10	Hanoi Military Vehicle Depot, Giap Nhat NW
11	Hanoi Military Vehicle Depot, Giap Nhat
12	Hanoi Vehicle Repair Shop, SW
13	Hanoi/Bac Mai Airfield

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Map KeyTarget Name

14	Hanoi Vehicle Repair Shop, Bac Mai
15	*Hanoi Machine Tool Engineering Equipment Plant
16	Hanoi Rubber Products Plant
17	*Hanoi Motor Vehicle Repair and Re-assembly Plant
18	Hanoi Concrete Products Plant, Tay Ho
19	Hanoi Concrete Products Plant, Chen
20	Hanoi Shipyard, Thuong Thuy
21	Hanoi Petroleum Products Storage
22	Kinh No Railroad Yard
23	*Kinh No Storage Area
24	Duong Xa Petroleum Products Storage
25	Phu Thi Petroleum Products Storage
26	Hanoi Shipyard, Thuong Thon
27	Van Dien Railroad Siding and Spur
28	Van Dien Battery Plant.

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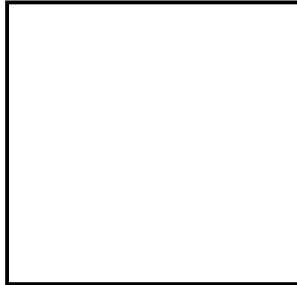
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Map Key

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Target Name

Hanoi Chemical Fertilizer  
Plant, Van Dien

Ha Dong Boat Yard

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*a. In addition to those targets listed below, there are 12 targets that have not been recommended for attack by the JCS because they are either inactive, unserviceable, of no significant value, or are communications sites.*

*b. Targets 1 - 18 are within 3-mile radius of the center of Hanoi.*

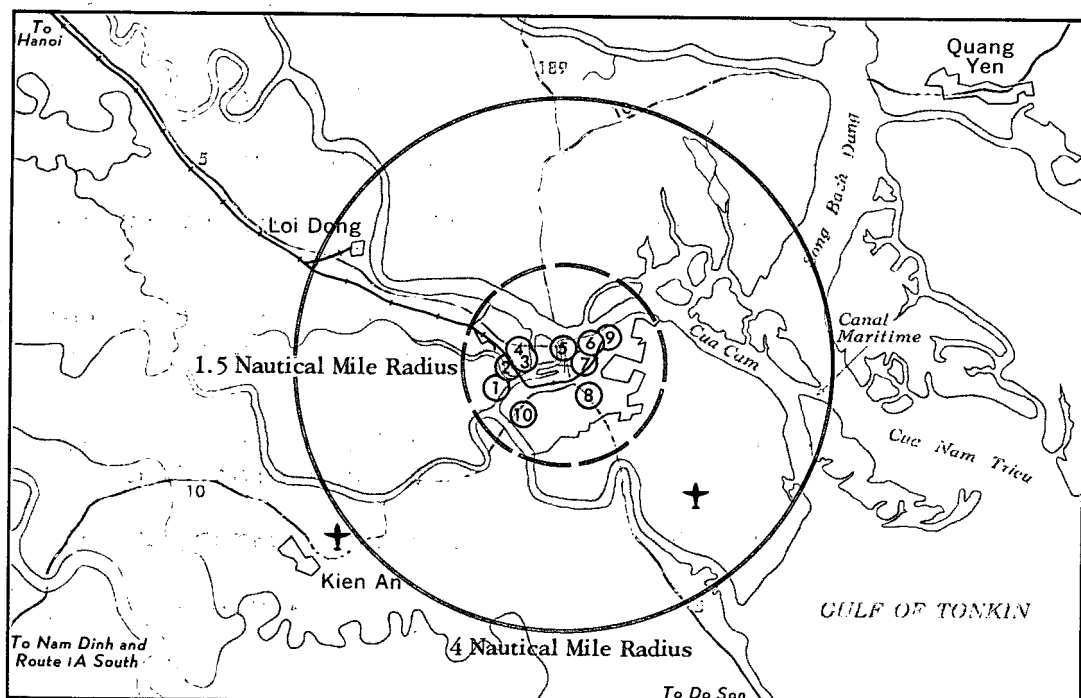
*\* Significant targets.*

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**HAIPHONG:**  
**Unstruck Targets in the Prohibited Zone, 1 November 1967**



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See Table 2 for Target Names

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Table 2

Unstruck Targets in the Haiphong Prohibited Zone  
1 November 1967 a/

<u>Map Key b/</u>		<u>Target Name</u>
1		Haiphong Shipyard, Vinh Khe
2		Haiphong Battery Plant
3		Haiphong Concrete Products Plant
4		Haiphong Fertilizer Plant
5		*Haiphong Port
6		*Haiphong Warehouse Area, Port
7		*Haiphong Railroad Station, Classification Yard, and Shops
8		Haiphong POL tank and Drum Fabrication Plant
9		*Haiphong Warehouse Area
10		Don Nghia POL tank Fabrication Plant

- a. *The Haiphong Transformer Station is not listed because it is inactive.*
- b. *All within 1.5-mile radius of center of Haiphong.*
- \* *Significant targets.*

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